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Land Information Services Division

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ALBERTA FORESTRY, LANDS & WILDLIFE
LAND INFORMATION SERVICES DIVISION

ANNUAL REPORT

1989-90

Alberta
FORESTRY, LANDS
AND WILDLIFE
Land Information Services

ALBERTA FORESTRY, LANDS & WILDLIFE
LAND INFORMATION SERVICES DIVISION

ANNUAL REPORT

1989-90

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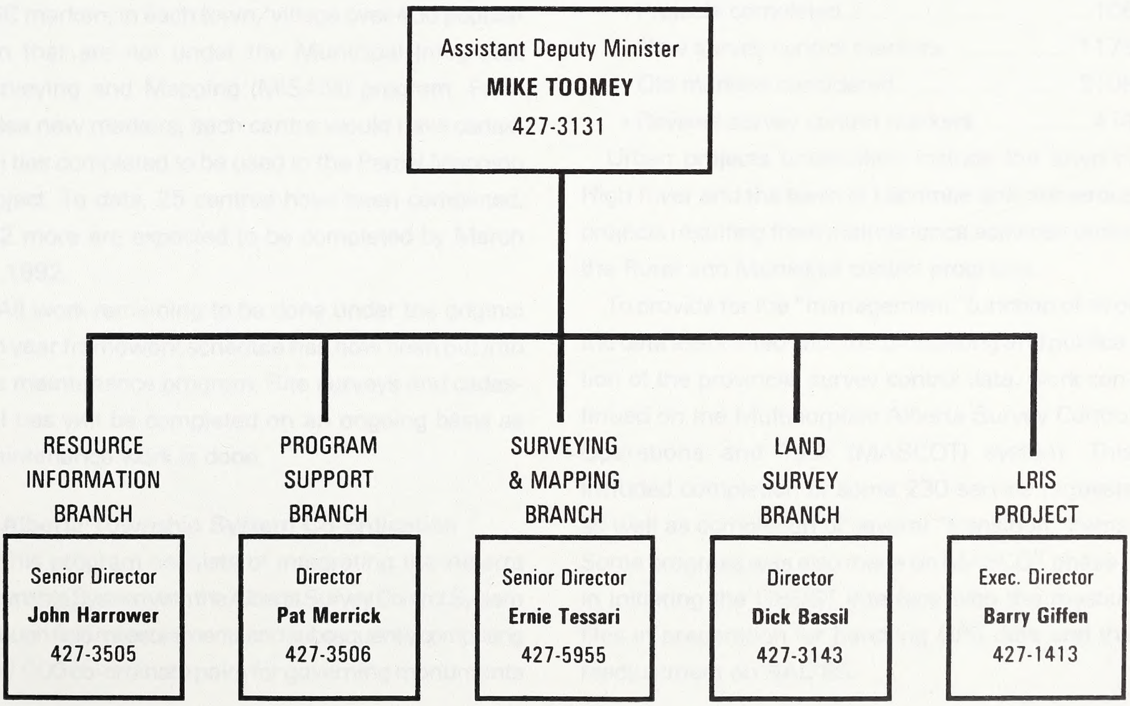
INTRODUCTION

The Land Information Services Division of Alberta Forestry, Lands and Wildlife provides land and resource information products and services to the Department, other Government Departments and the Public. The program includes survey control, mapping in support of provincial and municipal digital base mapping, resource information (data collection and analysis) service, the co-ordination of the development of the provincial Land-Related Information System, the distribution and sale of maps, and land information products and finally the administration of land survey legislation.

The organization of branches is as follows:

Figure 1.

LAND INFORMATION SERVICES DIVISION



DETAILS OF PROGRAM ACCOMPLISHMENTS

1. Geographical Positioning

a) Framework Survey Control

The basic survey control network for the province is provided by Framework Survey Control. This network consists of survey control markers placed at a spacing of approximately 10 × 20 km over the entire province. A total of 6,880 survey control markers now exist. During the past year, major tasks were completed as follows:

- 426 site surveys and cadastral ties to the Alberta Township System (ATS) were completed.
- 25 Alberta Survey Control (ASC) markers found damaged were restored.
- 9 new ASC markers were installed and integrated.

In January of 1990, a new major program was started. This program proposes to install four new ASC markers in each town/village over 400 population that are not under the Municipal Integrated Surveying and Mapping (MISAM) program. From these new markers, each centre would have cadastral ties completed to be used in the Parcel Mapping Project. To date, 25 centres have been completed. 162 more are expected to be completed by March 31,1992.

All work remaining to be done under the original ten year framework schedule has now been put into the maintenance program. Site surveys and cadastral ties will be completed on an ongoing basis as maintenance work is done.

b) Alberta Township System Co-ordination

This program consists of integrating the Alberta Township System with the Alberta Survey Control System through field measurements and subsequently computing 800 000 co-ordinate pairs for governing monuments and key positions in the township system. As well, co-ordinates have been computed for the surveyed boundaries of national parks, Indian reserves, Metis settlements, other federal reserves and all settlement plans. Several attributes (ie. width of road allowances were coded as being 66 feet or 99 feet) have also been compiled which complement the usefulness of the co-ordinate file. March 31, 1990 marked the completion of this program which began eight years ago.

c) Geodetic Computations

The Geodetic Computations Group executes mathematical adjustments and analysis to generate "published" survey marker positions from field observations. This group also undertakes the management and distribution of this data to users.

• Projects started	83
• Projects completed	106
• New survey control markers	1179
• Old markers considered	2108
• Revised survey control markers	414

Urban projects undertaken include the town of High River and the town of Lacombe and numerous projects resulting from maintenance activities under the Rural and Municipal control programs.

To provide for the "management" function of all of the data associated with the processing and publication of the provincial survey control data, work continued on the Multipurpose Alberta Survey Control Operations and Task (MASCOT) system. This included completion of some 230 service requests as well as completion of several "transition" items. Some progress was also made on MASCOT phase II in initiating the GHOST interface with the masterfiles in preparation for handling GPS data and the readjustment on NAD'83.

In support of adopting the new NAD'83 horizontal datum through readjustment, efforts continued in evaluating and validating data. In addition, through interaction with Geodetic Survey of Canada the simultaneous secondary adjustment including Alberta data was effected.

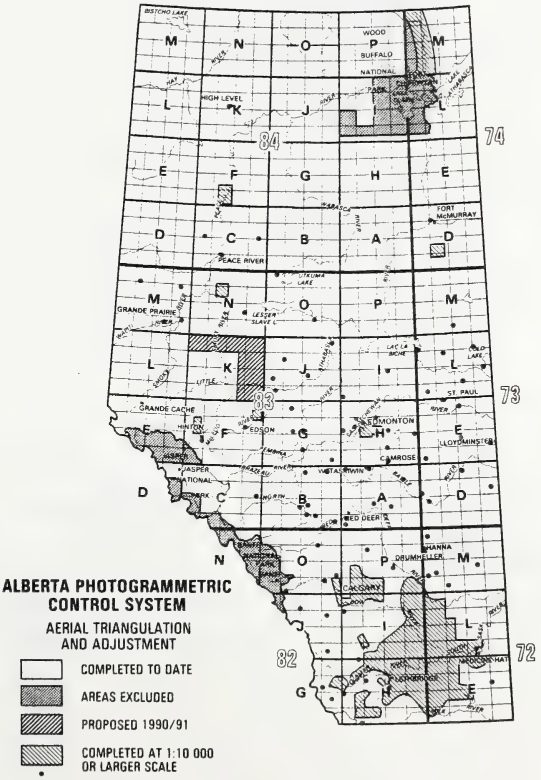
Other activities this past year included:

- Continued refinement of GPS specifications.
- Implementation of CANDSN on the VAX.
- Significant MASCOT data integrity checks.
- Implementation of new data processing procedures/guidelines.

d) Photogrammetric Control

A total of 5,477 models were indexed during 1989/90 bringing the total models indexed to 46,630. Control services continued to be provided to users within the government and private industry. The following map (Key Map A) indicates areas covered.

Key Map A



2. Provincial Base Mapping

a) Small Scale

The 1:2 000 000, 1:1 000 000, and 1:750 000 digital files (positional and representational) are up to date and were maintained on an ongoing basis. Multicolored maps were again produced from this digital data.

The final 12 digital files were updated bringing to 50 the number of files which give full Provincial coverage at 1:250 000. All files are up to date and were maintained on an ongoing basis. A number of multicolored maps (31) were produced using these files.

Fifteen digital files at 1:50 000 were completed utilizing specifications and procedures developed from last year's prototype.

A digital mapping project at this scale is scheduled for 1990/91.

All sixteen digital files in the 1:20 000 City series are now complete. They are Airdrie, Calgary, Camrose, Drumheller, Edmonton, Fort Saskatchewan, Fort McMurray, Grande Prairie, Leduc, Lethbridge, Lloydminster, Medicine Hat, Red Deer, St. Albert, Spruce Grove, and Wetaskiwin. These files are up to date and are maintained on an ongoing basis. Subsequent hard copy of all the cities were completed for duplication and distribution by Maps Alberta.

In addition to budgeted services, 63 mapping projects were completed through the Revolving Fund.

In total, 123 maps, 165 base maps, 298 bases, 1,124 prints, 85 miscellaneous charts and graphs, and 294 digital files were created, maintained, or distributed to users.

b) 1:20 000 Scale
Provincial Digital Base Mapping Project

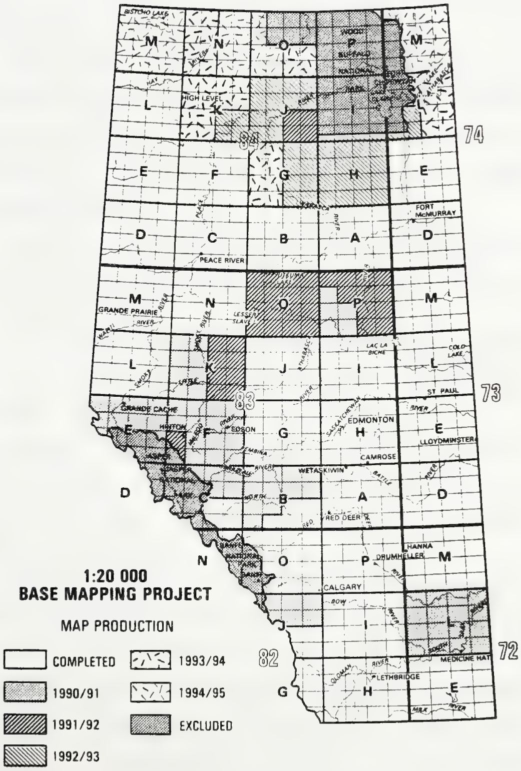
1989/90 saw the successful transfer of 1:20 000 PDBMP to the Provincial Mapping Section, Surveying and Mapping Branch. Contracting of 234

digital files was completed as planned. To date 1,835 digital files have been completed, leaving a total of 940 to be completed over the next five (5) years.

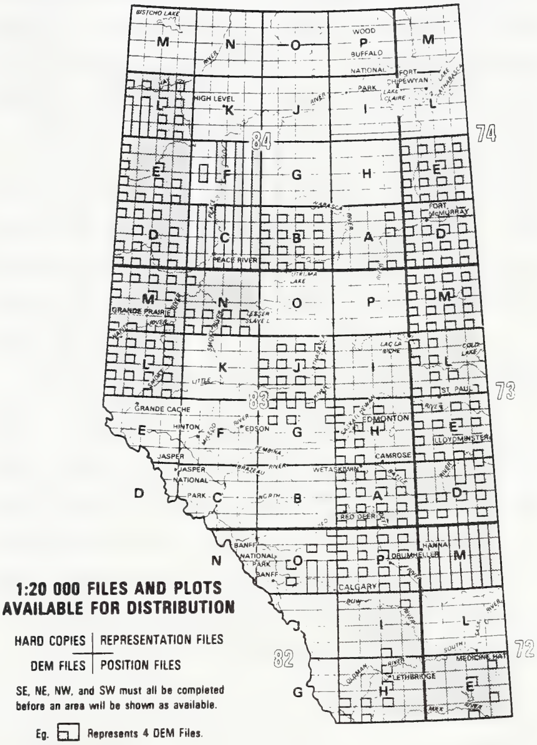
1,617 diazo prints were distributed through Maps Alberta, an increase of 457 from the previous year. Digital sales totaled 2,465 for 1989/90. Additionally, 900 files were updated and maintained for certain feature classifications.

The following maps (Key Maps B & C) indicate data available and planned production with map sheets available for distribution.

Key Map B



Key Map C



c) Other Base Mapping

A pilot and prototype project creating 1:20 000 digital town files was successful, resulting in the scheduling of 20 towns to be mapped for the 1990/91 fiscal year.

A user study was undertaken to obtain user input in determining required base features for all base map scales. Results of this study will be documented and put in place during the 1990/91 fiscal year.

3. Municipal Integrated Surveying and Mapping

a) Municipal Survey Control

The Municipal Survey Control Section plans and co-ordinates the establishment and maintenance of high density survey control in and adjacent to major urban centres in the province. This provides the geographical positioning system or survey control component of the Municipal Integrated Surveying and Mapping (MISAM) program as administered under municipal/provincial cost-sharing agreements.

The town of Lacombe and the town of High River entered into agreement under the MISAM program during 1989/90. A total of 218 Alberta Survey Control Markers (ASCM's) were established in these two towns. Service agreements with two land surveying consultants totaling $102,500 provided for the reconnaissance, design, installation, and measurement of survey control in the two towns.

The Section also approved the design and issued instructions for 56 ASC projects initiated by municipalities under the MISAM program. A total of 206 new ASC Monuments were established.

Editing field returns of 46 ASC projects were completed and passed on to Geodetic Computations Section.

In-house crews provided ASC measurements in 19 municipalities to strengthen existing networks in preparation for NAD'83.

In total, 424 new ASCM's were established and 1,099 existing ASCM's were occupied to integrate new markers this year under a total of 56 ASC projects.

Other activities in 1989/90 included the usual one week of E.D.M. instruction to University of Alberta Engineering students on the use of E.D.M. systems; and the completion of construction of the Three Dimensional Positioning Basenet. "Epoch one" measurements on the Basenet were performed by Geodetic Survey of Canada.

In conclusion, the MISAM program is now under formal agreement with 68 municipalities in the province.

b) Cadastral Mapping

Under the Municipal Integrated Surveying and Mapping Program, the Cadastral Mapping Section is responsible for the development and maintainance of land survey co-ordinates and digital cadastral map bases at a scale of a 1:1 000 for major urban centres in the province. From the 1:1 000 bases, 1:5 000 digital map bases are created and combined with contour (one metre) and orthophoto components. The contour component is derived from a digital elevation model (DEM) obtained photogrammetrically for the area.

During this report period, co-ordinates and maps were created for 241 new 1:1 000 bases, in Edmonton completing the initial base mapping, 66 in Lethbridge, 161 in Medicine Hat and 209 in the County of Strathcona. Contracts for the generation of co-ordinates and cadastral linework were let for Slave Lake and Wetaskiwin, while photogrammetric contracts for Slave Lake and the County of Strathcona (partial) were also let. Orthophoto/contour/cadastral mapping at a scale of 1:5 000 was completed for Slave Lake, 3 of 15 bases completed for the County of Strathcona and carry-over projects from 1988/89 of High Prairie and Drumheller/I.D.#7 were also completed. 1:1 000 and 1:5 000 cadastral bases for Black Diamond and Turner Valley were converted into digital format. In addition to Edmonton and Calgary, co-ordinates and mapping in 18 other municipalities were maintained.

In total, co-ordinates for 1015 new and 1131 revised 1:1 000 bases were generated and maps for 741 new and 1317 revised 1:1 000 bases, 34 new and 136 revised 1:5 000 bases and 18, 1:5 000 orthophoto/contour/cadastral bases were completed. In addition, 2237 digital files and 642 hard copy bases were distributed to users. A detailed status of the program is provided on Pages 6 and 7.

Municipal Integrated Surveying and Mapping (MISAM) Program

1:1 000 and 1:5 000 MAPPING SERIES

	MANUAL		DIGITAL		
MUNICIPALITY	CADASTRAL	CONTOURS	CADASTRAL	CONTOURS	DEM*
AIRDRIE			X	X	
BLACK DIAMOND		X	X		
BONNYVILLE		X	X		
BOW ISLAND			X	X	
BROOKS	X	X			
CALGARY			X		
CAMROSE			X	X	X
CANMORE	X	X	1990/91		
CARDSTON		X	X		
CARSTAIRS		X	X		
CLARESHOLM			X	X	
COALDALE	X	X			
COCHRANE			X	X	
COLD LAKE			X	X	
CROWSNEST PASS			X	X	
DRAYTON VALLEY			X	X	
DRUMHELLER/I.D.#7			X	X	X
EDMONTON			X		
EDSON			X	X	X
FORT MACLEOD		X	X		
FORT McMURRAY		X	X		
FORT SASKATCHEWAN		X	X		
GRAND CENTRE			X	X	
GRANDE CACHE	X	X			
GRANDE PRAIRIE			X	X	
HANNA		X	X		
HIGH LEVEL			X	X	X
HIGH PRAIRIE			X	X	X
HIGH RIVER			1990/91	1990/91	1990/91
HINTON			X	X	
INNISFAIL		X	X		
LAC LA BICHE			X	X	
LACOMBE			1990/91	1990/91	1990/91
LEDUC	X	X			
LETHBRIDGE			X		
LLOYDMINSTER			X		
MAGRATH		X	X		
MEDICINE HAT			1990/91	X	
MORINVILLE			X	X	
OKOTOKS		X	X		
OLDS		X	X		
OYEN			X	X	
PEACE RIVER		X	1990/91		
PICTURE BUTTE		X	X		
PINCHER CREEK		X	X		
PONOKA		X	X		
RAYMOND			X	X	X

*DEM (Digital Elevation Model)

1:1 000 and 1:5 000 MAPPING SERIES

	MANUAL		DIGITAL		
MUNICIPALITY	CADASTRAL	CONTOURS	CADASTRAL	CONTOURS	DEM*
RED DEER		X	X		
ROCKY MOUNTAIN HOUSE		X	X		
ST. ALBERT			X	X	
ST. PAUL		X	X		
SLAVE LAKE			X	X	X
SPRUCE GROVE			X	X	
STETTLER		X	X		
STONY PLAIN					
STRATHCONA, COUNTY OF			X	X	X
STRATHMORE			X	X	X
SWAN HILLS			X	X	X
TABER			X	X	X
THREE HILLS			X	X	X
TURNER VALLEY		X	X		
VEGREVILLE		X	X		
VERMILION		X	X		
WAINWRIGHT		X	X		
WESTLOCK			X	X	X
WETASKIWIN			1990/91		
WHITECOURT	X	X			

* DEM (Digital Elevation Model)

4. Parcel Mapping

Production was halted during this fiscal year as program funding was not available, however, several activities did occur in preparation for a 1990/91 startup. The Parcel Mapping Information System (PARIS), a project management computer system was designed, developed, tested, and implemented. The Parcel Mapping Specifications and Guidelines Document was thoroughly reviewed and modified to reflect the experience gained in 1988/89. Parcel Mapping Quality Control Specifications were written and two contracts were awarded to facilitate the quality control of the 96 township files which were compiled in 1988/89. In addition 12 township files were compiled in-house, but have not been quality controlled. Of the 96 township files which are now available for sale through Maps Alberta, ninety of the files cover the south half of NTS sheet 82H. The other six files are centered on Morinville.

5. Resource Information Services

In support of the Department's information requirements for the management of Alberta Public Lands, Forests and Fish and Wildlife, the Resource Information Service consists of air photo acquisition, remote sensing, resource inventory and analysis, resource information management, resource mapping and graphic services.

a) Resource Information Management

The unit's resources were dedicated to improve the overall management and co-ordination of the Department's natural resource information. Major projects involved improving the access to existing information, workplan development and

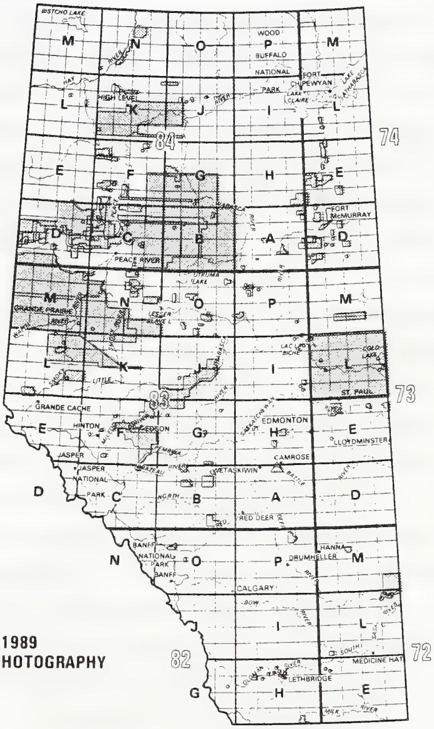
co-ordination, conference support and assistance to the high priority Alberta Vegetation Inventory project. Significant support was given to a detailed assessment of a proposal by the Nature Conservancy of Canada to establish an Alberta Conservation Data Centre. Information support was also given to the Prairie Conservation Co-ordination Committee. The branch library was streamlined, administrative files upgraded and hardcopy materials stored for future access. Approximately 100 adhoc requests for existing resource information were serviced. Other noteworthy results were the development of an automated bibliography of branch reports, a branch strategic plan, support to a Land Related Information System Task Group dealing with hydrography standards and compilation of information guides to support integrated resource planning.

b) Aerial Photography

During 1989/90 there were 192 individual areas photographed covering over 111 000 square kilometres (Key Map D). This represents over 39 000 line kilometres, or roughly equivalent to a line of photography once around the earth. The use of semi-controlled and uncontrolled mosaics doubled from the previous year with more than 50 areas completed, covering approximately 6 750 square kilometres.

The reproduction of new and existing aerial photography has shown a steady increase from last year. Supporting departmental, government and public clients in 1989/90, more than 200 000 contact prints, 8 600 enlargements and 1 500 diapositives were produced.

Key Map D



1989
AERIAL PHOTOGRAPHY

c) Remote Sensing

The Remote Sensing Centre continued to provide specialist services to the department and other Alberta clients during its second year. Seven projects in support of departmental clients were completed. These projects primarily involved satellite image search and digital processing and analysis tasks to generate habitat and vegetation cover maps. In addition, five generic activities were pursued including the provision of technical information, consultant services, imagery searches and optical analysis equipment. Several comprehensive remote sensing/geoprocessing program analysis, contracted to industry or performed in-house were co-ordinated and synthesized by Centre staff to provide information for defining future program direction.

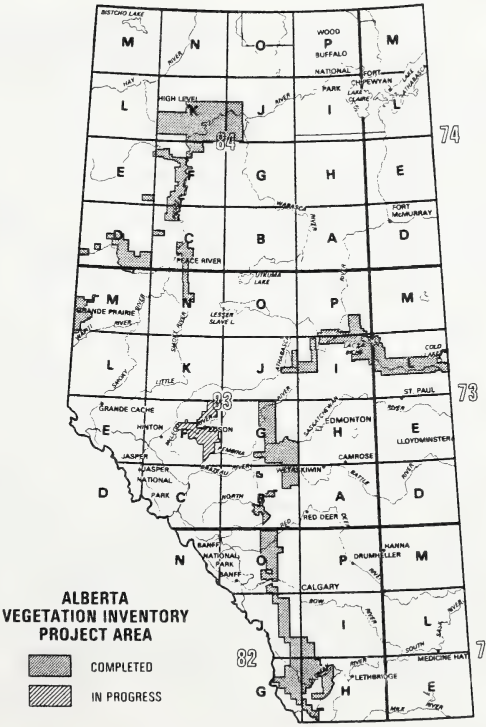
d) Resource Inventory and Analysis

This section provides services and products related to thematic data collection, classification, data analysis and resource evaluation. A key function is the co-ordination of the Department's information collection, establishment of data standards and the development of explicit natural resource evaluation procedures and methods.

The major inventory activity focused on the Alberta Vegetation Inventory (AVI) - a multi resource inventory for timber, wildlife habitat and grazing lands resources.

The AVI formerly named the White Area Inventory, neared completion with all 545 townships interpreted and transferred (Key Map E).

Key Map E



Supported by an automated environment, the map and polygon attribute data is being produced in digital form using Intergraph and ARC /INFO system capabilities. The data created is GIS compatible; however, the current project will deliver traditional map graphics and vegetation polygon attribute statistics as principal products. The remaining mapping and volume sampling will be completed in the next fiscal year.

With the completion of this project in mid 1990/91, this branch will have provided its first operational GIS based natural resource inventory.

Resource Inventory activities also included a physical land classification (PLC) for the Southern Region Range Overview project.

Detailed vegetation data were collected for the range survey of the Limestone Creek Grazing Allotment. Digital remote sensing data was utilized in the reconnaissance forest inventory of FMU's F10, F19, and F20 in the Footner Lake Forest. An upgrade of the forest inventory cover type maps of FMU W6 in the Whitecourt Forest as well as the Wabasca area was completed.

Biophysical inventories for the Yamnuska, Holmes Crossing and Milk River Natural Areas were conducted. Data on soils, vegetation and ecological site conditions were collected on 175 existing forest permanent sample plots (PSP's) and for the 23 new PSP's in locations throughout the Rocky Mountain Foothills.

The Climate program involved the maintenance of two data gathering networks located in the Cadotte and Medicine Hat areas. This was the first year of implementation of automated data loggers in the Cadotte network.

Three aggregate inventory projects were completed. These involved identifying potential sand and gravel resources in the M.D. of Provost and Spirit River areas and an update of the Open File reports for NTS map sheet 83 G/2 (Drayton Valley).

An automated system for monitoring the quality of resource inventory work conducted by government workers, as well as private contractors, was successfully tested and proven cost effective.

Resource inventory and analysis of the Eastern Irrigation District, Red Deer River Corridor, Crowsnest Pass, Smoky Lake - Rochester and the Utikuma areas were undertaken in support of Integrated Resource Planning. The scope of these projects varied from more traditional soil and vegetation surveys at 1:100 000 to very detailed analysis of wetland habitat change (EID) and shoreline mapping (Utikuma) at 1:20 000.

Presentation mapping graphics were completed for the Bow Corridor, Fort McMurray Fringe, Eden Valley, Grande Prairie County West and the Lower Peace River Recreation Site. Further mapping graphics will be continued for remaining areas in 1990/91.

6. Resource Mapping

a) Mapping Services

The Resource Mapping unit continued to provide mapping and cartographic services to various divisional and Departmental programs. In support of the Provincial Digital Base Maps project, 480 positional files and 1,088 Digital Elevation Model (DEM) files, submitted prior to April 1, 1989, were adjusted to a common standard. Training in checking procedures and systems applications was provided as needed to Surveying and Mapping staff. Thematic mapping was provided for resource inventories included physical land classifications, range inventories and the Alberta Vegetation Inventories. The provision of integrated resource inventory map products to support the Department's integrated resource planning program continued to be an active project.

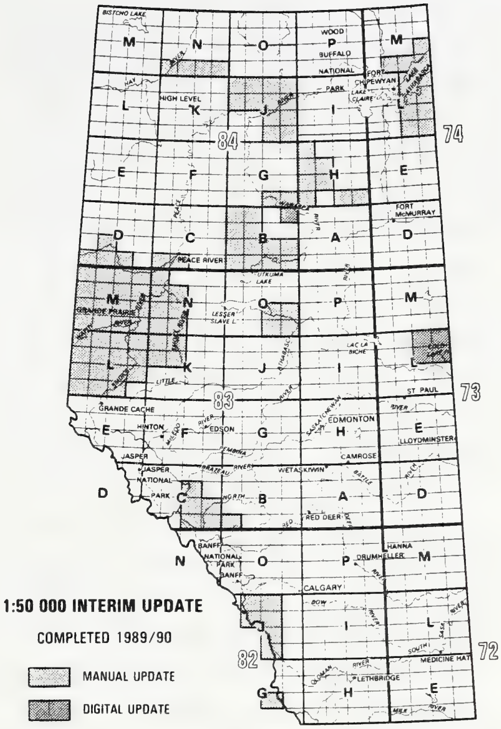
The development of automated mapping techniques continues to be a high priority. In support of the digital Alberta Vegetation Inventory mapping an automated process for polygon label placement, with a minimum of interactive editing, was developed. This cost savings approach will be utilized in other thematic mapping and inventory programs. Work began on the development of a major department system. The first step in building a land disposition mapping system was completed with the development of "area fill" mapping capabilities. This utility generated a graphic display from text records in the Land Status Automated System and will serve as an interim solution while detailed spatial data is being collected.

b) Graphic Services

Service to departmental clients was provided on a total of 249 requests. This service included 55 cruise order maps, 140 forest age class maps and 132 stream inventory maps.

Ongoing emphasis on defining client needs and changing technology saw the beginning of a new resource map update methodology. Scanning technology was tested in association with mapping using rasterized images. A pilot project involving five map manuscripts was completed via contract. Manual methods still resulted in 22 1:100 000 and 115 1:50 000 map sheets being updated for resource information (Key Map F). Graphics Reproduction, located at two sites, supports cartographic and mapping reproduction requirements for divisional, departmental and government clients. In total, this unit completed and delivered more than 63 000 square metres of reproduction material, over 10 000 exposures and nearly 5 800 Itek prints.

Key Map F



7. Land Related Information Service Project

The Land Related Information Services provides co-ordination for the orderly development of the province's land related information systems. As such it provides leadership and strategic planning to ensure that automated land and resource information programs are introduced in an integrated manner.

Significant progress was made in the development of the Land Related Information Systems (LRIS) Network Project in two areas: Systems development and Agency development.

LRIS Network development continued with the completion of the first three systems development steps: the Project Initiation, Project Definition and Proposals For Solution. Two workshops were held to review and accept the User and System requirements of the LRIS Network project. Three other workshops and a number of individual department interviews were conducted during the Proposals For Solution development step. Three important studies were completed. The first was a study to update the assessment of the Alberta market for LRIS products and services and review projected revenues. The second study was a review of the export opportunities, business opportunities and the framework for a provincial export strategy. Finally, a study was completed which investigated the issue of government chargeback for data exchanged between provincial departments. Initial work has begun on the development of an LRIS Business Agency.

Project committee support continued to be strong in 1989/90. Highlights of the important activities include the following:

- The Ministerial Advisory Committee (MAC) on LRIS reviewed the Business Options Study for the Minister. They also provided advice and assistance in the initiation of an LRIS Industry Directory.
- Two MAC Subcommittees were formed: the MAC Subcommittee on Municipal Systems, the first external users group, was established to identify issues relating to the integration of municipal systems in the LRIS Network: and the MAC Technical Review Subcommittee was formed to provide a review of the technical development directions for the LRIS Network by experts from outside the provincial government.
- The MAC Subcommittee on Roles of Government, University and Industry in LRIS prepared a preliminary report for

submission to MAC.

- The final report of the MAC Subcommittee on Underground Facilities was approved by MAC and forwarded to the Minister.
- The LRIS Steering Committee provided recommendations to the Hon. LeRoy Fjordbotten, minister responsible for the government of Alberta, on the LRIS Business Options Study report and approved the terms of reference for two management committees, namely the Network Systems Management Committee and the Thematic Systems Management Committee.
- The LRIS Administration Management Committee assisted in the areas of security standards, help-desk support, systems availability and the distribution of LRIS documents.
- The LRIS Standards Management Committee developed procedures for the review, validation, approval, publishing, dissemination and storage of LRIS Standards. The LRIS Data Standards Task Group (a subcommittee of the Standards Management Committee) delivered the first five proposed standards documentation for validation. They are: Alberta Township System Land Identifier, Plan-Block-Lot Land Identifier, Land Identification Numeric Code (LINC), Date and Time.
- The LRIS Network Systems Management Committee acted as a steering committee for the Proposals For Solution development step.
- The LRIS Thematic Systems Management Committee has initiated an inventory of Thematic Systems within the Alberta Government and defined initial criteria for prioritizing thematic systems for their integration to the LRIS Network. Finally, the LRIS Branch has developed and presented a microcomputer demonstration of the intended functionality of the LRIS Network, and introduced a monthly LRIS Bulletin for LRIS community members.

8. Distribution Services

To ensure users of Divisional products and services have ready access, distribution services operating under the name 'Maps Alberta', provide a network through which distribution is achieved. Maps Alberta offices are located in Edmonton and Calgary, with a Dealer network of some 90 Dealers providing access in all major centres throughout Alberta.

a) Changing 'Maps Alberta' User Priority Groups

Dealers

- Sales rose to 120% of last year's level.
- Annual sales of $231,888 represented 12% (11% in 1988/89) of the year's overall sales level of $1,955,228.

Public

- Sales rose to 113% of last year's level.
- Annual sales of $812,839 represented 41% (40% in 1988/89) of the year's overall sales level.

Forestry, Lands and Wildlife

- Sales rose to 146% of last year's level.
- Annual sales of $406,878 represented 21% (16% in 1988/89) of the year's overall sales level.

Other Government Agencies

- Sales fell to 86% of last year's level.
- Annual sales of $503,623 represented 26% (17% in 1988/89) of the year's overall sales level.

Sales to government, including Forestry, Lands and Wildlife, of $910,501, represented 47% of total sales as compared to 49% in 1988/89.

Sales to the public were $1,044,727 or 53% compared to $912,955 or 51% in 1988/89.

b) Laser Copier

During 1989/90, Maps Alberta took over the responsibility for "quick print" photo services through the use of a Canon colour laser copier. This copier is the only one of its kind in the Provincial government and allows Maps Alberta to provide an enhanced level of service to Government departments. Continued efforts are being made to expand usage within the Government sector. Actual sales for the year were approximately $163,000 ($136,000 - 1988/89) with strong indications that increases in activity will continue into the next fiscal year.

Sales were comprised of:

• Forestry, Lands & Wildlife	$54,000-32%
• Other Government	$47,500-28%
• Public	$61,500-40%

c) LISD Revolving Fund

The LISD-RF continued to break even and provide a contribution to overhead during the operating year (See Figure 2). Product lines were increased, overhead and production costs maintained at historical levels, resulting in minimal price changes and maintenance in service levels. Inventory continued to be managed at optimal levels, with the 1:250 000 provincial series being 80% updated and printed during the year.

The LISD-RF Marketing Plan was implemented to see a stronger identification of Maps Alberta on products produced by the Province. The Maps Alberta logo was added and will continue to be placed on all printings of maps distributed through Maps Alberta. A series of promotional brochures were produced to promote specific products.

Maps Alberta management has continued to be involved in the International Map Dealers Association, to bring marketing techniques and promotional materials used by other countries (United States, Great Britain, Australia) into use by Maps Alberta. Valuable information was obtained during last years conference and trade show in Kansas City. A lobby is being mounted to bring a subsequent conference and trade show to Edmonton within the next 2 or 3 years to follow-up on the URISA Conference in August 1990.

Request for Proposals have been released to determine the viability of a point of sale accounting system for all Maps Alberta locations.

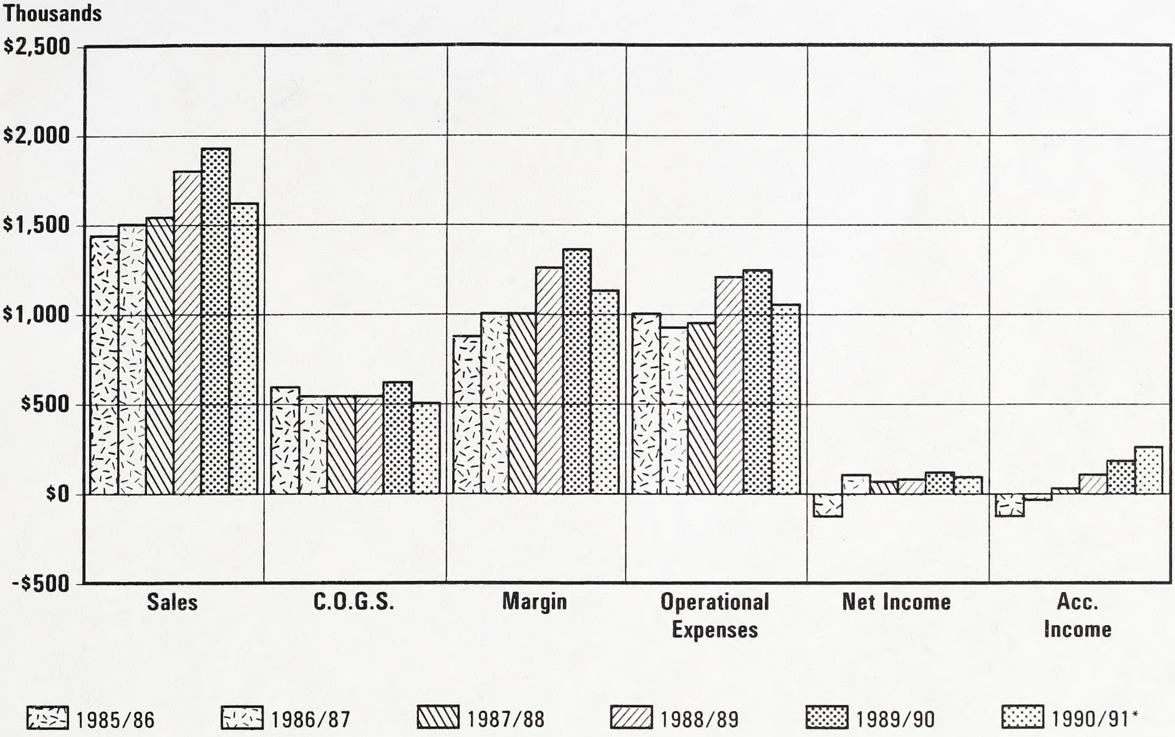
d) Remote Access

A pilot project has been undertaken to determine the viability of remote access, via personal computers, of digital information. Approximately 117 survey companies and individuals have been approached to access test data from the MASCOT data base. The resulting activity will define the operating procedures and costing methods for providing this type of service.

Figure 2.

LISD REVOLVING FUND

Analysis of Performance



*Projected Figures

9. Land Survey System

a) Preservation and Maintenance

A total of 481 new survey plans were examined for compliance with related legislation, and approximately 5,500 survey plans were entered into the Land Survey Document System (LSDS) and indexed on hard copy township diagrams. (This compares to 420 new survey plans examined and approximately 4,900 plans entered into the LSDS in fiscal year 1988/89).

Assistance and guidance on matters relating to Land Surveying were provided to the public, members of the Alberta Land Surveyors' Association and other government agencies. A total of 19 inspection surveys were conducted and one resurvey is in progress.

A total of 294 registered plans were given a cursory examination to determine the quality of land surveys in the Province.

Some 225 cases of errors on surveys or plans were investigated and measures taken to resolve and/or correct them.